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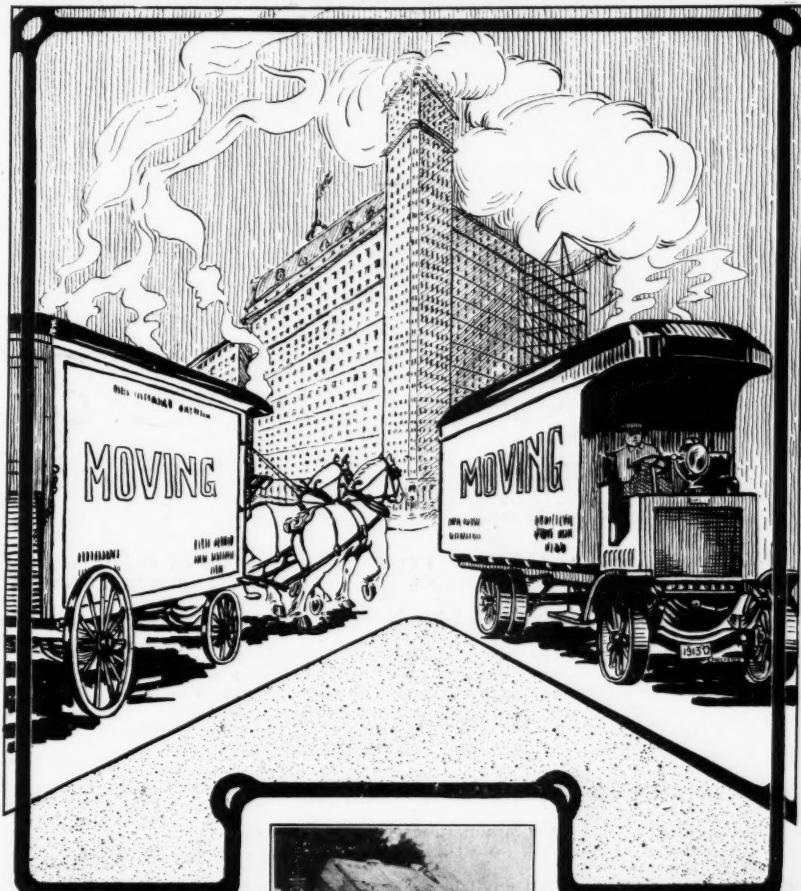
THE TEAM OWNERS REVIEW

JANUARY, 1914

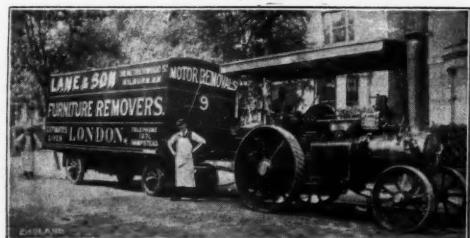
VOL. XIII., NO. 1.



Proceedings,
Annual
Convention,
American
Warehousemen



Indianapolis
After
the Late
Teamsters'
Strike.



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THE TEAM OWNERS REVIEW

DIAMOND
HORSE
SHOES

Are made from the
toughest horse shoe
steel manufactured
and will stand all
kinds of abuse.

DIAMOND HORSE SHOES

Diamond Calks

TOOLS AND HORSE SHOES
THE OLDEST THREADLESS MADE

DIAMOND CALKS are so made that the shanks fit perfectly in the holes, and from the time they are first placed in the shoe they remain securely in their place until lifted out by the extracting wrench and a new calk or a set of calks inserted.

DIAMOND CALKS call for the minimum of labor in inserting or extracting them from the holes in shoes. No broken knuckles when using these calks.

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Diamond Calk Horse Shoe Co.
DULUTH, MINNESOTA.

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TEAM OWNERS REVIEW

Entered as Second-Class Matter in the Pittsburgh Post Office.

Volume XIII.

PITTSBURGH, PA., JANUARY, 1914.

No. 1.

THE TEAM OWNERS REVIEW

OFFICIAL PUBLICATION OF
THE NATIONAL TEAM OWNERS ASSOCIATION
AND
AMERICAN TRANSFERMEN'S ASSOCIATION.

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79 Portland Street, Boston.

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* * *

The Team Owners Review is published in the interest of the men and companies who are engaged in what may be comprehensively called "the Trade of Teaming," to which belong Transfer, Warehouse and Express Companies, Truckmen, Carters, Hauling Companies, Livery Stable Owners, etc., etc.

If you wish your address changed, be sure to give the old as well as the new address.

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Orders for new advertising, or changes intended, should reach this office not later than 15th of month previous to date of publication, to insure insertion in the next number.

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Lessons in Organization.

TIME was when a man bought a horse, stabled it on his back-lot and perhaps had enough grass on the vacant common nearby for considerable free pasturage; got feed from his neighbor up the road on trade and dickered with the village wheelwright for a patched-up wagon—then went in the hauling business. Maybe in time he built a wagon-shed and the village boys borrowed space in the half-story above it to store a long bob-sled during the summer months.

That teamster and warehouseman had no great reason for joining an association, subscribing to trade papers, and maintaining a fixed schedule of rates for hauling or for storage. He was a very complete economic unit.

But why does the teaming and warehousing company in our great cities to-day, which hires men in the open labor market, buys auto vans in a highly-specialized market, pays rentals regulated by real estate market conditions, and buys feed and gasoline and fuel at prices regulated by country-wide price movements—whose rate of insurance, even, is fixed by a definitely authorized board—why should this teaming and warehousing company of to-day attempt to make charges on the same plan that suited the village carter and handy man of a half-century ago?

Costs in teaming and in warehousing in a dozen great cities in the Northern half of the country are greatly identical; then why the widely-varying charges for van work and storage, such as are quoted in a committee report in the summary of the proceedings of the Warehousemen's Convention, given elsewhere in this issue of the TEAM OWNERS REVIEW?

There is only one answer—that the modern manager has not grown with his business and his opportunities. It is time the great associations in the teaming and warehousing fields attempted something in the way of cost studies, looking toward equalization of rates.

TEAM-OWNERS the country over will find much to interest them in the methods adopted by the Indianapolis associations in dealing with the recent strike of teamsters there. Indianapolis realizes the unfavorable reputation the recent labor troubles there have given her, and her business men are taking the right means of overcoming it.

SOME of our big trucking concerns over east could take a lesson from the example of the Los Angeles company that is going into interurban trucking on a regular schedule, detailed in our Motor Truck Department this week.

Indianapolis After the Teamsters' Strike.

The following statement on the situation following the collapse of the teamsters' strike at Indianapolis was sent out last month by the Commercial Vehicle Protective Association, the Retail Coal Merchants' Credit Association and other organizations involved in the difficulty. The employers' organization felt that the public in general was not getting as full and accurate reports of the Indianapolis situation as should have been given out, and therefore prepared the statement:

The business interests of Indianapolis won a signal victory over the teamsters' union in the recent strike that city. But the most important result of the strike is the fact that the employers are welded together now, for defense purposes, and are determined to resist to the last, further efforts to make Indianapolis a closed shop town.

The effort to unionize the teamsters followed the street car strike, and this movement was a part of a general program of organized labor to make Indianapolis a closed shop town. The determined resistance on the part of the business men was evidently a surprise to the labor leaders, for the whole plan was soon abandoned by them. The teamsters were sent back to work on any terms that could be obtained, the demand for formal recognition of the union being entirely eliminated in the final instructions by the president of the teamsters' union to the strikers.

The determined attitude of the business interests is best illustrated by the fact that they compelled Mayor S. L. Shank to resign his office, after he had utterly failed to control rioting at the time of the street car strike. Harry R. Wallace, the city comptroller, automatically succeeded Shank and he entered into the fullest co-operation with the business men's organization, to the end that there was little disturbance on the streets when the teamsters' strike was called.

Through the initiative of the Employers' Association, practically all of the concerns in the city employing teamsters or drivers, were brought together in an organization known as the Commercial Vehicle Protective Association. A campaign fund was raised and headquarters were established in the offices of the Employers' Association, which are in the heart of the business district. An executive committee composed of leading manufacturers, jobbers and merchants directed the defense work. Special police powers were obtained for hundreds of loyal drivers. A force of 500 prominent citizens, including bankers, lawyers and business men was sworn in for special service, one hundred of these being mounted.

On the first day of the strike no effort was made to move commercial vehicles. But the organization

work was so complete that on the second day many trucks and drays delivered goods. Some of these were escorted by policemen, but in the main they were guarded only by private employes with police powers. Some of the wagons carried as many as six armed men, shot-guns, rifles and revolvers being prominently displayed. Only in one or two instances was it necessary for the guards to use their arms, but when forced to this extremity in self defense, they did not shoot in the air.

Mayor Wallace had taken personal charge of the police force, assisted by Captain George V. Coffin, acting chief of the department. Their orders were for no crowds to be allowed to congregate and the mounted police enforced this order to the letter.

The result of this co-operative program between the city officials and the business interests was that within four days after the strike was declared, traffic had been restored to nearly a normal basis. The union had been able to enlist a comparatively small per cent of the teamsters, and the great majority of firms were ready to operate with their regular drivers as soon as protection was provided.

Shipping was interfered with very slightly and many concerns reported no loss of business. Notices were mailed out to the trade announcing that plans had been made to meet the strike when it should be called and this proved reassuring.

While the strike has not been called off officially, all members of the union have been advised to seek work, the suggestion being made that they have "verbal" agreements with employers, as to wages, and that permission be obtained to wear the button. No pretense at a demand for general recognition of the union is now made. Employers in the Protective Association are refusing to employ union men on the ground that members of the union would seek to "convert" non-union drivers and in the end another strike might be called.

The business men say the strike has been worth all it cost because it has brought all the business interests to an appreciation of the necessity for co-operative effort. An enlarged and broader Employers' Association is being formulated and the fight for the maintenance of the open shop in Indianapolis will continue. Indianapolis has always borne the reputation of being an open shop town, and it is quite evident that the spirit of the citizens means that this condition shall not be changed.

Regarding the attitude of the Retail Coal Merchants' Association, a member of that organization writes the

"Team Owners Review" under recent date as follows:

"Our association is composed of practically every retail coal merchant owning a yard in Indianapolis, and in this fight, with but one exception, they have stood together as a man. The exception is one of our smaller members who felt he would gain by what his fellow dealers lost through boycotting."

Among the Associations.

St. Louis.

At the December meeting of the St. Louis Team Owners' Association, Thursday evening, December 11, election of officers was in order. The following gentlemen were chosen:

President—Edward Weber.
 Vice President—Herman A. Lucking.
 Secretary—A. J. Kuepfert.
 Treasurer—Robert F. Mitchell.
 Sergeant-at-Arms—John P. Vahrenholz.
 Traffic Manager—Farwell Walton.
 Board of Directors—Carl Kaufmann, chairman; William Koechig, Hy W. Wiehe, Barney Pagenkemper, E. H. Koch.

The twenty-second annual ball of the St. Louis Team Owners' Association was held Tuesday evening, December 16, at the beautiful Tramps hall, in the West End. This entertainment of team owners will surely go down in history as one of the most elaborate that has been accomplished by the association. All arrangements for this occasion were carried out most perfectly. The numerous friends of the team owners who attended were highly pleased with both the arrangements and the splendid dance program for the evening. The weather was ideal for an occasion of this sort, and a larger gathering than in previous years was the result.

The band played "Home, Sweet Home," at 12:40, and at 1 o'clock a. m., a happy throng of fathers and mothers, sisters and brothers, sweethearts and their escorts departed for their respective homes.

The committee on arrangements was composed of: Farwell Walton, Chairman; Fred Weber, Carl Kaufmann, Robert F. Mitchell, Hupp Tevis, E. H. Koch, William Koechig.

A. J. KUEPPERT, Secretary.

Kansas City, Mo.

The Kansas City team owners and families renewed acquaintances at their banquet and ball given at Assembly hall, November 29. Some 300 were in attendance; some imagined they were too old for the tango, but all expressed themselves with the dinner and of having the pleasure to make new and meeting old acquaintances.

Our regular monthly meeting was held December

4, 44 members being present. The annual election of officers was perhaps an incentive for some of the members. While there was friendly rivalry for some of the offices, all the members had the best interests of the association in view when voting and all members are now ready to assist the new officers in making 1914 the banner year in achieving things for the teaming interests of Kansas City.

E. L. Barr, our president for 1914, is one of the directors of the National Association and has the reputation of doing things. Our Association has lately been incorporated under the laws of the State of Missouri, and with our by-laws revised, and attorney employed at an annual salary, our Association is in a position to meet any opposition that might appear detrimental to interests and objects of our Association.

C. E. WAYNE, Secretary.

Houston, Texas.

The Houston (Tex.) Team Owners held a very interesting meeting December 9, and this being the last meeting of the year officers were elected for the ensuing term as follows:

L. G. Riddell, president, (re-elected); A. M. Chambers, first vice president, (re-elected); T. L. Waugh, second vice president; Adolf Westheimer, secretary-treasurer, (re-elected).

Three directors were also elected as follows: George A. Hill, chairman; T. H. Lockett, W. E. Tobias.

The matter of affiliating with the National Team Owners' Association was discussed and the secretary was instructed to take the matter up further with the secretary of the National Association. The members spoke favorably of affiliating with the National Association, but want further information before taking final action in the matter.

Favorable reports were received on general conditions in the teaming industry.

The relations between the local transfer companies and railroad officials are as satisfactory as can reasonably be expected, each side doing its share to prevent friction.

In the short time since the organization of the local association quite a good deal has been accomplished toward making conditions easier for the teaming industry in general, a fact which has instilled the confidence in the members that our organization is now a permanent one and we also believe that outsiders have taken that view of the matter and a healthy growth of the association is expected. With that end in view, resolutions were passed at this meeting to make an effort to obtain the application of every firm or individual in the teaming business in this city.

After the business session, refreshments were served as usual and the members took themselves homeward at a late hour, mentally and physically refreshed.

ADOLF WESTHEIMER, Secretary.

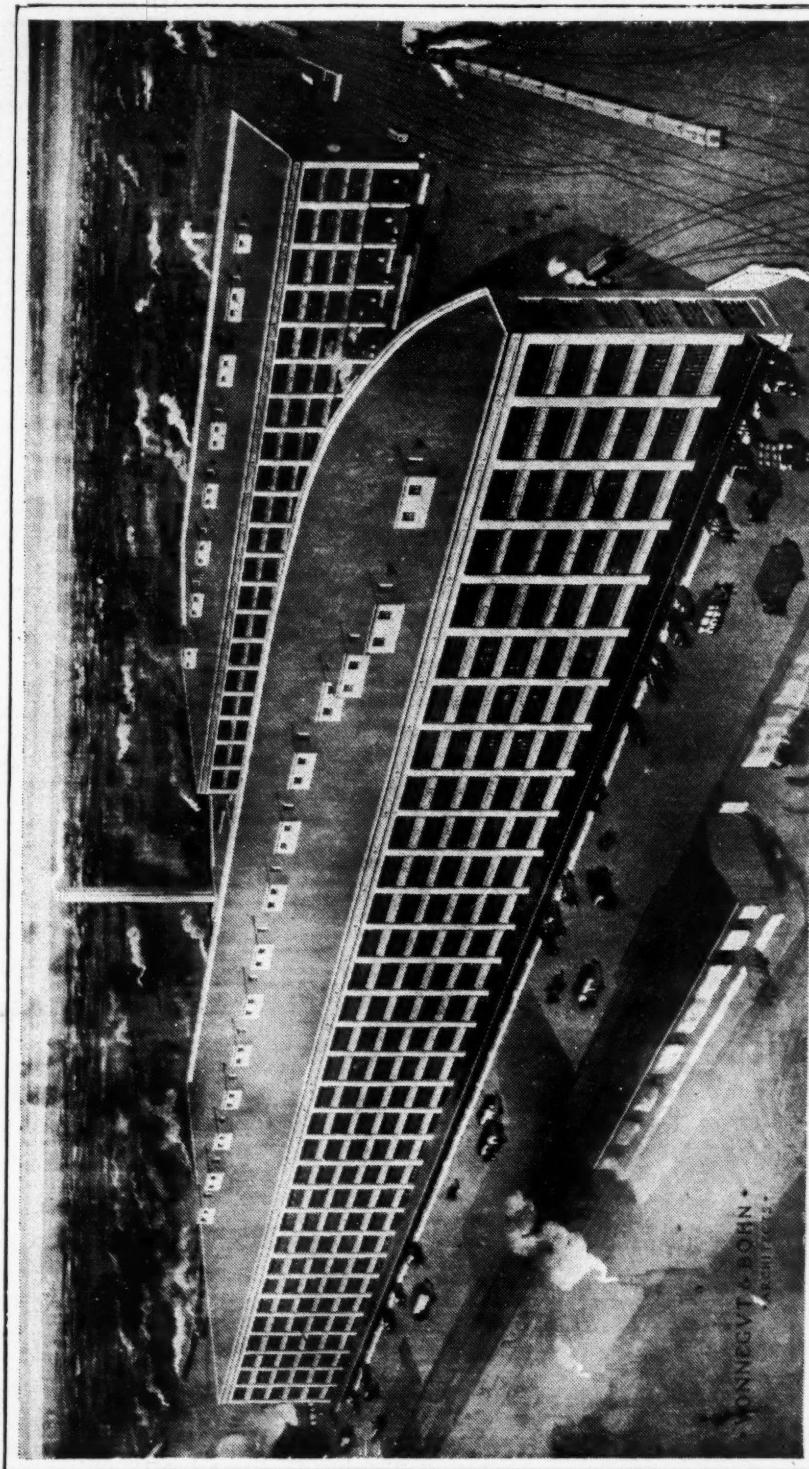
World's Largest Storage Warehouse to Be Built at Indianapolis.

INDIANAPOLIS is interested in the plans for the largest and most modern warehouse in the world to be erected in that city. The new building is to be opposite the Big Four, the Vandalia and the Pennsylvania freight houses, and one block from the Union Station, and will be directly connected with all the railways entering Indianapolis by the lines of the Indianapolis Union Railway Company. The terminal will be built in two units, and the two main tracks of the Pennsylvania lines will pass between the structures. The men back of the project assert that it will be one of the greatest warehouse systems in the United States.

Its arrangement and facilities will enable it to accommodate a great number of the city's wholesale houses. For the description here given, together with the illustration on this page, we are indebted to "Storage," a monthly publication of Indianapolis.

The new terminal will be six stories high and will have a basement. It will be so constructed that sections of all six stories and the basement, of any size, can be rented to one firm. The system is novel in many particulars and combines principal economies of warehouse construction from models in all the important cities.

In addition to the main tracks of the Pennsylvania lines five sidetracks of the same road will serve the building and two sidetracks of the Indianapolis Union



Architect's drawing of proposed new warehouse at Indianapolis, to have six stories and a basement and cover an entire city block; floor area, about 30 acres. It will contain about twenty million cubic feet of space. Elevated tracks will make it necessary to unload all freight at second floor level, and 48 elevators will handle the freight. The year capacity will accommodate 560,000 tons, and 7,000 tons of freight can be handled each day.

Railway Company will give transportation service to every railroad entering Indianapolis. The terminal will cover an entire city block and the total floor area will be about 30 acres. It will contain in the neighborhood of 20,000,000 cubic feet.

Elevated Tracks.

The freight will come in from the elevated tracks and all merchandise will be unloaded on the second floor level. From here it will be distributed by an immense platform to all the units. Forty-eight elevators will facilitate the handling of freight between the various floors. It is estimated that there can be handled 1,800,000 pounds, or 7,500 tons of freight each day. The floor capacity is 1,120,000,000 pounds, or 560,000 tons.

The entire building will be fireproof, being constructed from basement to roof of steel and reinforced concrete. Even steel doors and window frames will be used. Special fire insurance engineering on the structure will make it possible, the builders say, to obtain an insurance rate of less than 1-10 of 1 per cent. Any occupant of the terminal will be able to receive from the team, receive from cars, deliver to team and cars simultaneously without any process interfering with any other.

Materials Used in Construction.

To show the immensity of the proposed structure the promoters have gathered some interesting facts concerning the material for the terminal. In the construction 170,000 barrels of cement, 160,000 panes, or four acres, of glass, and 120,000 loads of gravel and sand will be used. It will take 200,000 barrels of water to mix the concrete and 24,000,000 feet of reinforcing rods which is equivalent to almost one-fourth the way around the earth, will be used.

In connection with the terminal will be a large power house having 1,000-horsepower capacity, for giving heat and providing electricity for light, power and elevator service. A considerable portion of the second floor is given over to a union freight station, from which freight will be received from the Pennsylvania and the Union railways.

For the last year the architects, Vonnegut & Bohn, have visited all the principal cities in the United States and have made a careful study of the best terminal facilities now in existence. It is said the building will outstrip the wonderful Bush terminals of New York city, the Pittsburgh Terminal, the Keystone Terminals of Buffalo or the Cuppel Terminals of St. Louis.

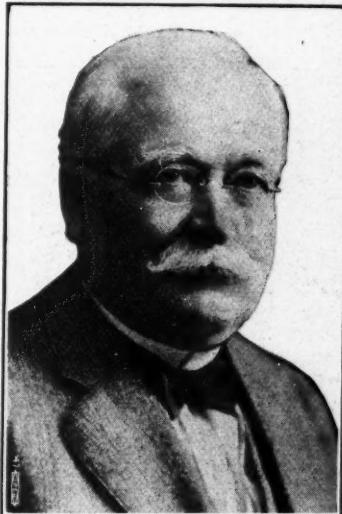
The new structure will be called the Rauh Warehouse. Mr. Rauh is one of the wealthy men of Indianapolis and can secure all financial backing needed. Frank Fishback, who had a successful warehouse for years, is managing the new building.

W. F. Young, of Springfield, Mass., has just published a new horse book for free distribution to explain the cause of lameness and the way to cure it with Absorbine.

OLD ESTABLISHED PITTSBURGH BUSINESS IN NEW HANDS.

W. A. Hoeveler, president of the W. A. Hoeveler Storage Company, 1150 Penn avenue, Pittsburgh, has disposed of his entire storage and transfer business to the Murdoch Storage & Transfer Company, of 546 Neville street, East End, Pittsburgh, which takes over all the equipment, together with the Hoeveler storage facilities. The Murdoch Company is Pittsburgh's newest storage firm and is composed of D. V. Murdoch, president and E. A. Murdoch, vice president, both young men, who have for the past 11 years held responsible positions with the Haugh & Keenan Transfer & Storage Company.

The new owners are entirely remodeling the Hoeveler



William A. Hoeveler



E. A. Murdoch.



D. V. Murdoch.

storage warehouse at 546 Neville street, Pittsburgh, making this building an up-to-date storage building in every particular. It is the intention to build a strictly fireproof building in the East End district, in fact the site has been located, but plans will not be drawn until the changes and improvements are completed at the Neville street warehouse. The present motor equipment is to be increased by the addition of several more motor trucks in addition to which are to be added a number of head of horses and several new furniture wagons.

Original Ideas.

The new firm will make a specialty of furniture storage and transfer, and a number of improvements are

now being considered; among them is the furnishing of a lady packer for wedding trousseaux, an entirely original idea with D. V. Murdoch, which has met with great success. Another innovation is to be the dressing of furniture packers in complete uniform. This also is something new for Pittsburgh, although it is a general thing in some of the Eastern and Western cities.

The entire second floor of the building has been remodeled and partitioned for use as the general offices, and will be equipped with every modern convenience, desks of mahogany and decorations to correspond. The members of this new firm are well equipped for the conducting of an up-to-date storage business, having had many years' experience in that line.

Retirement of W. A. Hoeveler.

The retirement of W. A. Hoeveler removes a commanding figure from the transfer and storage business in Pittsburgh. Mr. Hoeveler was the first Pittsburgher to have a three-horse covered furniture moving van; the firm was established in 1894, and for many years had



Pittsburgh's finest auto van, still in use.

made a specialty of the moving and storage of household effects. They were also the first in Pittsburgh to install motor trucks for hauling furniture. The accompanying illustration shows the first auto moving van used in Pittsburgh.

Mr. Hoeveler was born in Pittsburgh, and has been a member of Pittsburgh city council for two terms. It is his intention to devote his entire time in the future to his duties as councilman. This old-established firm has been located in its one place of business for the past 17 years, and in fact this was one of the landmarks of Penn avenue.

The Tight Check Rein.

The expert veterinarians sum up their statements thus:—"The tight check-rein lessens the horse's strength, brings on disease, keeps him in pain, frets him, and injures his mouth, spoils his temper, and is useless to the driver."

THE HORSE SHOER'S SIDE OF IT. An Interesting Letter, From an Authority.

To the Editor of the TEAM OWNERS REVIEW:

Following the excerpted reference under the caption "A Heavy or Light Shoe," on page 8 of the December issue of the "Team Owners Review," you ask a question, thus: "But may we inquire, what about the shoer who purposely shoes light or sends out a team with dull shoes in a season when icy weather may come any morning?"

If I may be permitted to answer the query, would say that the "Review" might be excused for taking the "fling" were it not that we believe its editor or staff-writer who penned the lines, was, or at least should be aware of the fact that many horses are shod too heavy for either comfort, good service or safety to bone or muscle, this being proven by a comparison that might be made of the time service rendered by those forced to carry weight greatly in excess of either requirements or natural power.

In some European countries, Scotland and England for instance, drafters are shod fully 50 per cent heavier than are the American truck horses, with, we understand, no better results in wear and much less in the service of the foreign animal. Excessive weight means purely a slower movement or depleted power; and reduced carrying power being accentuated by excessive weight is but an added reason for ground dwelling and heavier wear.

To the very questionable charge of dishonest motives on the horseshoer's part by him "sending out a team with dull shoes in a season when icy weather may come any morning," does the "Review" not know that on uncovered pavements it takes but a very short time—an hour is sufficient—to make the sharpest calks dull and unfit for service when put upon icy pavements. And because the horse shoer cannot pierce the future foretelling just what kind of weather the next day is to bring, the "Review" charges by innuendo that he, the shoer, is "putting one over" on the horse owner by adopting blunt instead of sharp calks, a truly unjust position to assume.

For your benefit it might be stated that in ninety-nine out of one hundred cases of the kind under mention, the shoer is not only right in using the blunt calk, but he is also saving the owner money, because a sharpened calk wears about one-third the time than that of the blunt calk; further, drawing up a new set of blunt calks is several times harder than sharpening them in the first operation. In truth such a job is a hardship that no man relishes; therefore, the position which you criticise is fortified by every right.

It is but another link in the chain of evidence that neither horse shoeing as a skilled practice nor shoers

themselves receive the appreciation that is their right to expect from those to whom they render service.

J. C. BUCKLEY,
Manager, "Horseshoers' Journal."

Detroit, Mich., December 27.

EDITOR'S NOTE:—Mr. Buckley is entitled to his statement of the case. However, in view of his plaint in the last paragraph of his letter, we feel justified in calling attention to the fact that our original statement was not that "ALL horse shoers," or "a MAJORITY of horse shoers," or even "MANY horse shoers" were guilty; we referred to "THE shoer," which certainly implies an isolated case. If the horse shoeing profession actually is 100 per cent efficient, as Mr. Buckley seems to believe, we take off our hat to 'em; they have the teaming industry beaten to a finish.

PITTSBURGH AND VICINITY NOTES.

The Excelsior Express & Standard Cab Company, Pittsburgh, who have the exclusive privilege for hauling passengers at all city depots, contemplate adding additional taxicabs the coming spring. Joseph Ford, general manager, who is one of the active members of the American Transfermen's Association, reports that business has been exceptionally good and that the prospects for spring are very promising. There seems to be a shortage of high grade draft horses, the price being higher now than it has been for many years. This does not look as if the auto were putting old Dobbin out of business.

D. D. Kirby Company, 1515 Liberty avenue, Pittsburgh, who make a specialty of boarding horses, report that they do not find the auto truck affecting their business as they are taking care of all the business their present building will permit. They are stabling 165 head of horses and cannot accommodate any more.

The Lohman Transfer & Storage Company, Erie and Burd streets, Northside, Pittsburgh, contemplate adding two double teams to their present equipment, and if business opens up in the spring they expect to add a one-ton motor truck. They are also in the market for a piano hoist.

The recent increasing of weight in packages by the postal authorities has caused considerable business to be shipped by parcels post instead of local express.

Moving Company Merger in Cleveland.

At Cleveland, last month, a merger of four East End moving companies was effected by the Lake Shore Moving & Storage Company, which has been incorporated with capitalization of \$15,000. Fred F. Reynard, 1322 East One Hundred and Fifth street, and Allen B. Peek, 9202 St. Clair avenue, Northeast, Cleveland, are the incorporators.

NEW ENGLAND NEWS

[From Our Own Correspondent.]

New England Office, TEAM OWNERS REVIEW,
79 Portland Street, Boston, Mass.,
December 20.

The regular monthly meeting of the Team Owners' Association was held at the Revere house, at 6:30 p. m., with 34 members present. Dinner and social intercourse occupied the time till 8 o'clock, at which hour the meeting was called to order for business by President Loveless.

Following the reading and approval of the minutes of the November meeting the secretary presented the application of D. W. Dunn & Company, for membership in the Association. This being in proper form, on motion of Mr. Quimby the rules regarding membership were suspended and the above named concern was unanimously elected to membership in the Association.



W. D. QUIMBY.

The secretary then reported that the city, since the last meeting, had repaved Exchange street with wood blocks. The attention of the city was called to the fact that this section was embraced in the restraining order granted by the Supreme court in 1909, whereby only granite blocks were permissible for paving purposes, and the authorities were requested to restore the street to its original condition. This they declined to do, with the result that the matter was called to the attention of the court by the Association and a hearing set for December 2. At the hearing the court declared that the city had most flagrantly violated the decree and by its act was in contempt of court. The city was ordered to take up the wood blocks, restore the granite pavement and report to the court on December 16, at which time the matter of penalty for violation of the injunction would be considered.

The attention of the meeting was then called by various ones present to the necessity for better methods at the Boston & Maine Railroad, in regard to the issuance of bills and checks and quicker and more accurate information of the location of freight both in cars and in the houses.

This matter was placed in the hands of a committee, composed of Messrs. Shiland, Somes and Shedd, with instructions to see what could be accomplished in this connection and report results at the January meet-

USE ONLY U. S. HAMES—THEY ARE STANDARD QUALITY

ing of the Boston Association.

There being no further business the meeting adjourned at 9:45 p. m.

Boston Markets.

The Horse market is very dull. Hay, grain and corn have had practically no change.

A Boston Visitor.

E. B. McCullough, secretary and treasurer of the W. L. McCullough Company, Ypsilanti, Mich., was visiting the company's agency for the Bell oat and corn crusher in Boston, during the month. Mr. McCullough was much impressed with the city and with its great resources. This was his first visit. Mr. McCullough claims to manufacture the best oat and corn crusher combination that has ever been produced in the United States or anywhere else and I have taken considerable pains to investigate the results and find that his statement was more than correct.

W. D. QUIMBY.

An Important Bulletin to Buyers of Stock Feeds.

The Massachusetts Agricultural Experiment Station has just issued its Bulletin 146, Inspection of Commercial Feed Stuffs. It is the first bulletin issued under a new feeding stuffs law. The chemical analyses of about 1,000 feeding stuffs found for sale on the Massachusetts markets are shown, and in the case of mixed or compounded feeding stuffs a statement of the ingredients is given.

The Bulletin also contains several pages of interesting comments on the different classes of feeding stuffs, which should be of use to every practical feeder.

The Bulletin is completed with a table of average wholesale prices of the standard feeding stuffs, for each month of the year, September 1, 1912, to August 31, 1913.

The Bulletin will be sent to anyone requesting it. Communications should be addressed to the Director, Agricultural Experiment Station, Amherst, Mass.

Auburn Teamsters Enjoined from Boycotting

At Auburn, N. Y., last week, a temporary injunction was issued by Supreme Court Justice S. Nelson Sawyer against the Auburn Central Labor Union, the Auburn Teamsters' Union and affiliated unions restraining them from acting in any way to injure the business of the Auburn Draying Company. The unions, it was alleged, had threatened to begin a boycott against the company.

The Auburn Draying Company, which does a large part of the teaming in Auburn, claims that while it has no objection to its employees joining the union it would not force them to become members when they were

unwilling. The union officers have engaged counsel and will argue against making the injunction permanent.

New Type "Bubbler" Fountains For Detroit.

Detroit is getting a new set of "bubbler" drinking fountains for horses—50 of them in all, the gift of Miss Stella Ford, of Detroit, to the city. The fountains are of a new type, each being provided with six shallow bowls, into which the water bubbles, and are thought to be more sanitary than the old type watering trough. Of the formal opening of the second of these fountains, on December 19, the Detroit "Tribune" says:

Horses by the score awaited their turn at the new fountain, and six were accommodated at once, there being six "bowls" in the fountain. Because of the bubbler construction, it is hoped by Commissioner Fenkell and the committee members that it will be possible to keep the water running all winter, not only in that new fountain, but in the one installed at Cass and Grand River avenues several months ago.

The fountains, 50 in number, of which two have been placed, are the gift of Miss Stella Ford to the city, and the rest will be installed next spring. They were selected from many types investigated, because of the sanitary qualities of the bubbler bowls. A place at the base of the fountain is provided for dogs.

"We had the fountain placed at this point," said Mrs. Abner E. Larned, chairman of the Animal Welfare committee, "as we believed we could reach more of the tired horses used in heavy teaming. The fountain is within easy reach of the docks, the railroad freight houses and several big wholesale houses. We expect to have another fountain of the large type placed in the vicinity of the county building next spring. There also will be between 40 and 50 of the smaller sanitary fountains placed about the city in the spring."

Besides Commissioner Fenkell and Mrs. Larned, Mrs. Eugene Lewis, a member of the Animal Welfare committee; Peter Dunn, superintendent of sewers, and J. E. Connors, secretary and treasurer of the Detroit Cartage association, were present at the dedication.

"This fountain is certainly a great thing for the horses," said Mr. Connors. "Men in the cartage and delivery business are anxious for more of them to be erected, and I am glad to assist in any way I can to get them in all parts of the city."

Motor Cycle and Parcels Post.

According to tests made in the Omaha (Neb.) post-office, it has been shown that parcel post packages can be delivered by motorcycles $\frac{1}{4}$ cent cheaper per package than by carrier. In the test 428 packages were delivered by motorcycle at a cost of \$10.80, or $2\frac{1}{2}$ cents per package, while five carriers delivered 657 packages at a cost of \$17.98— $2\frac{3}{4}$ cents per package.

Twenty - Third Annual Convention, American Warehousemen's Association.

Held at Atlantic City, N. J., December 3-5, 1913.

IMPORTANT questions to the warehouse and trucking interests were discussed at the Twenty-third Annual Meeting of the American Warehousemen's Association, at the Hotel Dennis, Atlantic City, N. J., on December 3, 4 and 5. It was one of the largest gatherings in the history of the Association, and the three days were replete with interesting discussions and papers.

Important changes were made in the roster of officers of the Association. President Homer McDaniel, of Cleveland, O., who had held the office four years, declined to again be a candidate. Treasurer Walter C. Reid, of New York, was tendered the honor of heading the association, in recognition of his arduous services to the organization in past years, but declined because of press of business affairs. The following ticket of officers for the year was then chosen:

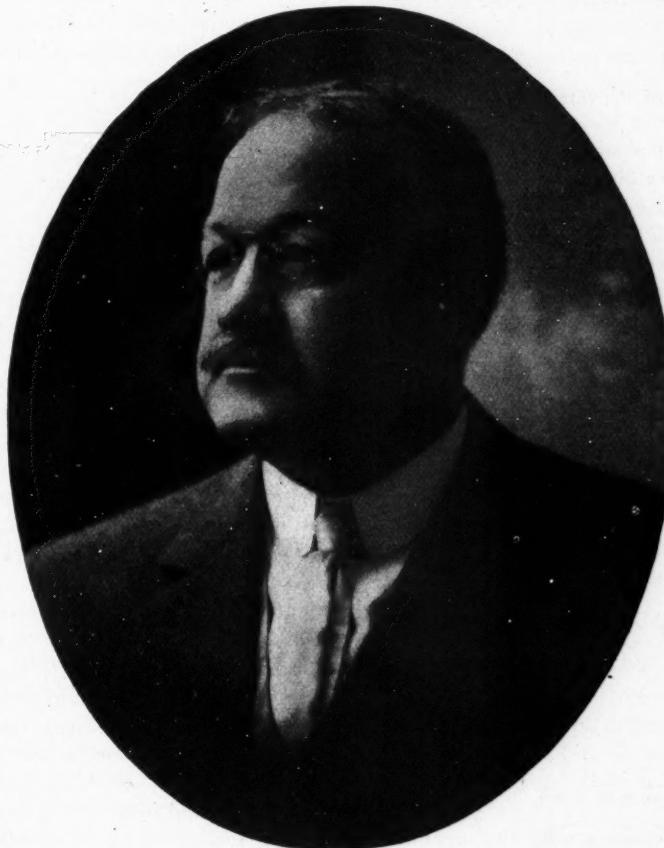
President—George S. Lovejoy, Quincy Market Cold Storage & Warehouse Company, Boston. (Elected unanimously.)

Vice President—Philip Godley, Godley's Warehouses, Philadelphia. (Re-elected.)

Secretary—Charles L. Criss, Union Storage Company, Pittsburgh. (Re-elected.)

Treasurer—Walter C. Reid, Lincoln Safe Deposit Company, New York. (Re-elected.)

Directors—Frank A. Horne, Merchants' Refrigerating Company, New York (to fill vacancy caused by resignation of C. B. Lawrence, of New York); F. L. Bateman, Trans-Continental Freight Company, Chicago; R. H. Switzler, St. Louis Refrigerating & Cold Storage Company; John Bekins, Omaha, (Neb.) Fire-proof Storage Company; Homer McDaniel, Sheriff



George S. Lovejoy, of Boston, the New President.

Street Market & Storage Company, Cleveland.

Messrs. Godley, Reid, Criss, Horne and Bateman comprise the new executive committee.

Sessions in Separate Sections.

The sessions on December 3 were devoted to general business, including reports of the officers and the standing committees. December 4, the second day of the convention, was devoted to simultaneous sessions by the two sections, the Household Goods section and the Cold Storage section. General sessions were held again on December 5. The annual banquet was held on Thursday evening, December 4.

During the opening day's session, the following reports of standing committees were heard:

Laws and Legislation—Philip Godley, Philadelphia, chairman.

Banks and Warehouses—C. H. Utley, Boston, chairman.

Railroads and Steamships—Edwin Morton, Cincinnati, chairman.

Bonded Warehouses—Philip Godley, Philadelphia, chairman.

Insurance—W. F. Oatman, New York, chairman.

Warehouse Construction and Labor Saving Devices—George H. Stoddard, Boston, chairman.

Transfer and Forwarding—F. L. Bateman, Chicago, chairman.

Warehouses as Public Utilities—S. M. Haslett, San Francisco, chairman.

President McDaniel reported informally, at the opening session.

The Secretary's Report.
Secretary Criss submitted a most encouraging re-

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port, in detail, of the association's activities for the year. Only a summary of the subjects covered can be given here. In the main, said the secretary, the year 1913 had been a prosperous one for the members and the association. The volume of business in the cities of the country was above the average; in many localities the warehouses were taxed to capacity. This was particularly true of the bonded warehouses.

During the year the only publications issued by the association had been the annual report and the regular monthly bulletins.

The net gain in membership during the year, the secretary reported, was 21 concerns—establishing a new record for the association. The total new memberships during the year was 24, while there were three withdrawals. The number of cold storage warehouses joining the warehouse report on butter and eggs increased from 41 to 46. This report now embraces the principal houses of the country from the Missouri Valley east, and north of the Ohio river, with the exception of the houses connected with the Chicago meat packing trade.

Anticipating Effect of Panama Canal.

In improvements, the year had been remarkable, Secretary Criss said, rather for port developments than for inland improvements in warehousing facilities. The cause, he believed, was the approaching completion of the Panama Canal. Warehousemen and transfer men, he said, might reasonably expect great changes in the trend of the business in the next few years; it was probable the opening of the canal would enlarge the channels for the distribution of commodities. Many things now received by rail from the West will probably reach both the East coast of the country and a large section of the interior from the east, and vice versa. The only question, he believed, is to what extent Transcontinental railroad lines might readjust their freight rates to offset the water competition; but it was hardly possible that the railroads could so adjust rates as to leave the storage and distribution of goods on the basis on which it exists now.

Suggestions.

Several suggestions were incorporated in the report—including a proposition before the secretary for the employment of an experienced warehouse and office man to travel among the membership and systematize work in offices and warehouses in the interest of economy and efficiency.

The report noted seven deaths among the membership during the year—including William A. Robinson, who, although not connected with the association at the time of his death, had been its president for nine years prior to 1909; Albert J. Golden, general manager of the Industrial Cold Storage Company, Philadelphia; Seth L. Keeney, president of the Eagle Warehouse & Storage Company, Brooklyn; Robert Hewitt, a charter member of the association and one of the pioneers in the

cold storage business, having organized the Brooklyn Bridge Freezing & Cold Storage Company in New York in 1882, and Robert Furey, a director of the Eagle Storage & Warehouse Company, Brooklyn.

Other Reports.

Treasurer Walter C. Reid reported the financial condition of the association good, the audit showing a net gain of about \$1,300 in income above expenses.

The executive committee, through Chairman Philip Godley, submitted its report, reviewing the work of the committee during the year.

The report of the committee on laws and legislation, submitted by Chairman A. M. Reid, will be reviewed in these columns next month, as will also a synopsis of the report on transfer and forwarding, by Chairman Bateman.

Bonded Warehouses.

The committee on bonded warehouses, through Chairman Philip Godley, reviewed the congestion in the bonded warehouses of the country that had followed the reduction in tariffs during the latter part of the year. S. N. Hazlett, of the Hazlett Warehouses, San Francisco, submitted an interesting report from a special committee on "Warehouses As Public Utilities," reviewing the conditions in California following the assumption of supervision over the warehouses of that State by the Utilities Commission. As a whole, the report stated, the outcome of the first year's test had been favorable, although there were many details yet to be solved.

The Household Goods Section.

At the opening session of the Household Goods section of the Association, on December 4, R. J. Woods presided as chairman. A synopsis of a number of the reports and papers read before this section appears in the following pages.

Treasurer Walter C. Reid, of New York, discussed "Feeders for the Storage Warehouse Business," taking up questions such as silver storage, upholstering, repairs and second-hand clothing. His judgment rather leaned toward the theory that the average warehousing business could be better conducted without "side-lines" unless there were exceptional opportunities to make such side-lines vastly profitable.

Extracts from the report of the Household Goods Committee, and from C. J. Hamilton's paper on "Determining Profits" are given in the pages that follow. J. F. Keenan, of Haugh & Keenan, Pittsburgh, read a highly humorous paper which he had labeled, "Getthe-money," in which he reeled off supposititious correspondence on claims and accounts which contained an underlying current of satire, yet gave excuse for abundant merriment. The paper by H. J. Latimer, of Cleveland, on "Miscellaneous Household Storage," and the report by George S. Lovejoy, of the committee on general

merchandise, also are abstracted further along in this report. During the day the Household Goods section had interesting discussions on "Motor Vans"; on "Contract Work Vs. Time, Material and Labor, and Space Rates"; on "Economical Transportation of Goods Without Packing"; on "Collection of C. O. D. Accounts," and on "Forms of Advertising." These discussions will appear in full in the Association's "Annual Proceedings," which will be issued shortly.

Cold Storage Section.

The Cold Storage Section of the Association, which met simultaneously with the Household Goods Section of the Association, was presided over by Frank A. Horne. The morning was given up to technical discussions of cold storage questions, and the afternoon to

practical discussion of the business side of the industry. Rates, loans, government supervision, commodity reports, credits and accounting, all received attention.

Chicago came in for much blame as to the present disorganized conditions in rates on cold storage, during a discussion of rates and loans. Several members advanced views on the question, one pointing out that the price of 30 cents a case on eggs in Chicago was ridiculous and the opinion was advanced that most of the reform in the cold storage business would have to originate in Chicago, where the abuses are worst. In Chicago, it was said, the packers care very little about rates, as their business is strictly a merchandise proposition; nevertheless Chicago sets the rates on all cold storage rates from Chicago to New York; Pittsburgh especially bearing the blunt of most of this ruinous competition.

REPORT OF COMMITTEE ON GENERAL MERCHANDISE.

George S. Lovejoy, Chairman.

The committee on general merchandise in its report made this suggestion: "The committee would like to hear a discussion before the association on the subject of railroad storage, which is becoming a very important factor, especially in the large centers. We feel the matter should be taken up not from an antagonistic standpoint with the railroads, but at least with a view of submitting to them the inconsistency of many of their rules.

The worst feature that presents itself seems to be where the railroad stores in its freight shed at 1 cent per 100 pounds, 10 days. This rate does not make the merchant take his goods from the sheds, but gives him a cheaper way to handle goods rather than putting them in warehouses.

The extra expense incurred to the railroad in this

kind of storage is not considered in making the rate as it is swallowed up in the expense of handling freight at that station and in claims. Also where rates are made for special lines of goods there seems to be a lack of efficiency in balancing the rates. A package of a certain line that may weigh 200 pounds is taken at the same rate as another package that weighs 1,000 pounds. All the railroad knows is that it is a bale of a certain kind of goods.

It seems to your committee that this matter should be discussed with the idea of urging the railroads to ask a proper rate for service rendered, and if it is done with a strong hand in connection with the Interstate Commerce Commission, there is no doubt but that results will be obtained.

MISCELLANEOUS STORAGE BY PRIVATE INTERESTS.

Extract from a Paper by H. J. Latimer, Cleveland, O.

In my opinion, the time is now ripe for this association, and all other similar associations, to consider the correction of certain conditions in our business which we have too long submitted to.

I refer to the condition existing to-day in every large the warehouse business, and who are constantly violating, that of certain incompetent parties, engaged either as individuals or as co-partners, or as corporations in ing the ethics of our association.

These parties in the first place, have not the proper warehouses to accommodate the storage of household goods, or other personal property of the public, that require care and attention while in storage. And in the second place, they have no desire to make good any damage suffered through their negligence in the care of articles stored, not to say anything about their proper

return. Owing to the fact that many of such persons are wholly irresponsible the public who have been misled in dealing with them, generally are sufferers; for a suit against them would be useless, even though judgment were obtained.

Need of a License Law.

I have arrived at the conclusion that the proper thing for this association, and similar associations, and other persons not members of any association conducting a legitimate business, is to combine our efforts and secure the passage of a suitable "Uniform Warehousemen's License Law," to be passed by the legislative bodies of States not having such laws, or to work for the amendment of our present warehousemen's statutes so that all shall include the license features. Briefly,

such a law as proposed should provide that any person engaged in the warehouse business, before being allowed to carry on the business of warehousing, should be required to obtain from a designated officer of the State a license to engage in such business and be required to give bond to the State for the use of any party injured through his negligence in a substantial sum with sufficient sureties; the license to be renewed at stated intervals, or from year to year, on payment of a fixed fee.

Such law further to provide that it should be unlawful for persons, partnerships or corporations not duly licensed to carry on the business of warehousing in so far as such business applied to the receipt or deposit in

storage of household goods, wares and property, with a penalty attached for violations.

Further Suggestions Asked.

The speaker referred to legislation in North Dakota and Nebraska and in other States, looking toward this end.

On motion the proposition to agitate for legislation on the subject, was referred back to the household storage committee for an opinion at the next meeting, as to whether it is advisable, and ways and means of carrying it out. There was much discussion on the paper.

REPORT OF COMMITTEE ON HOUSEHOLD GOODS.

By R. J. Wood, Chairman, Chicago, Ill.

At the last annual meeting in Pittsburgh two questions of importance were referred to your committee with power to act, one being a resolution that your committee advocate the adoption of a rule on the part of the railroads, requiring that household goods be packed before shipment. This subject was taken up with the railroad classification committee and docketed for their meeting in St. Louis last spring, but was stricken from the docket without action because the classification committee thought the matter of proper inspection absolutely precluded adjustment of a graded scale of charges on different classes of goods, namely, packed and unpacked. The classification committee acknowledged their inability to check the different classes of household goods properly, particularly in small towns.

Your committee would recommend that a special committee be appointed to draw up specifications for the proper packing of household goods with the understanding that goods not packed in accordance with such specifications take a higher freight rate; and to submit same to the various railroad classification committees and urge their adoption.

Question of Insurance.

In October, your committee sent out a series of questions. About 40 per cent of the members sent in answers. The answers to the question, "What percentage of goods stored are packed for storage?" shows a wide divergence both in the same cities and in different cities. The West and Middle West shows the highest percentage, running from 50 per cent to 90 per cent. New York reports 10 per cent to 75 per cent; St. Paul showed the smallest percentage, 5 per cent.

The most striking feature of all, and one that would seem to call for some action on the part of this association, is the wide variance in insurance rates. There should be no material difference in rates on warehouses of the same type in different cities.

We find in fireproof warehouses that the lowest rate

is reported in Duluth, Minnesota, 20 cents; Washington comes next, 35 cents; Kansas City, 35 cents, in rooms; Pittsburgh, 46 and 47 cents; New York, 47 cents; Cleveland, 50 cents and higher; Chicago, 60 to 63 cents; Omaha, 64 cents; Los Angeles, 65 cents; Detroit, 66 cents and higher; Cincinnati, 80 cents; Baltimore, 98 cents. Some rates show up to \$1.85, in Buffalo, Philadelphia, Detroit, and New York.

It is reasonable to suppose that different types of fireproof construction in different communities would affect rates more or less, but why should there be such a difference in rates between modern warehouses in Washington and Chicago? Of course, we all know that the boards of underwriters in various cities arbitrarily make such rates and restrictions as they see fit, but there seems to be little justice for the warehousemen and no logical reason for such difference.

Motor Equipment.

To the question, "To what extent, if any, have you replaced horse drawn vehicles with motor equipment?" the replies indicate that more than half the members are not using motor vehicles, but are considerably interested in the relative cost of operation of the motor van as compared to the horse. The balance of the replies shows the use of one or more motor vehicles and the gradual replacement of the horse by the motor.

The majority are using gas cars, although the electric seems to be gaining in favor for short haul and city work. The D. A. Morr Transfer & Storage Company, Kansas City, reports using 50 per cent motor vans. The Boyd Transfer & Storage Company state they are constantly increasing their motor truck equipment. The Lincoln Safe Deposit Company, New York, are using electric vehicles almost entirely and are finding them much more economical than the horse. The Fireproof Storage Company, Cleveland, are replacing their horse-drawn equipment with motor vans and state that by January 1, 1914, they will be operating no horse ve-

hicles. On the other hand, the Pioneer Fireproof Warehouse, Brooklyn, have discontinued entirely the use of motor vans for the reason that the prevailing rates are so low they are compelled to operate at a loss.

Rates for Van Service.

There seems to be no uniformity whatever in rates for motor service, and the prices prevailing in different cities are in many cases ridiculously low, so low in fact that operation at a loss seems the inevitable result. We would naturally infer from the replies sent in that no attempt had been made to arrive at a rate commensurate with the investment and cost of operation.

Many members are charging the same rate for motor van service as they do for horse vans. New York gets from \$7 per load to "any price they can get." Prices in other cities are as follows:

Cleveland, \$3 to \$4 per hour, city work; \$1.25 to \$1.50 per mile in country, number in crews not stated.

Buffalo, \$4 per hour, van and four men.

Baltimore, \$5 with five men.

Kansas City, \$3 with three men.

St. Paul, \$3 with two men.

Minneapolis, \$3 with two men.

Spokane, \$1.50 with two men.

Harrisburg, \$1 to \$1.50.

Mansfield, \$1.75.

Pittsburgh, \$2 per mile, city work, \$1.50 per mile, country work.

Detroit, \$4 per load, one mile circle, 50 cents each additional mile, country work about \$1 per mile.

Chicago, \$2 per hour, loading and unloading, 65 cents per mile going and coming, city work.

Rates for horse-drawn vehicles are uniformly by the hour with the exception of Detroit, Cincinnati and Eastern cities ranging from \$2 per hour, van and two men down to \$1.25 for van and two men. Other rates are as follows:

Pittsburgh, contract, \$2 per mile, van loads; minimum \$10. Philadelphia, contract, \$6 per 500 cubic feet, van load; New York, contract, \$7 per van, down. Washington, \$5 and \$6 per van; Boston, \$1 per mile; Baltimore, contract, \$1.50 per hour, van and two men, apartment removals, and \$3.50 per van load, dwelling to warehouse, one mile radius; \$4 per van load, house to house, radius one mile; Detroit, \$4 per van, one mile; Cincinnati, \$3.50 per van, first floor to warehouse, more according to zone.

REPORT OF SPECIAL COMMITTEE ON OPERATING COSTS.

By S. M. Hazlett, Chairman of Special Committee on Operating Costs.

Mr. President and Members of the American Warehousemen's Association:

Early in the year, I suggested to your President the advisability of appointing a Committee on Operating Costs. The suggestion met with his approval, and he appointed Mr. Lovejoy, Mr. Greeley and myself as such committee, making me its chairman.

Secretary Criss then sent a circular letter to the members of the Association, asking that copies of any forms being used for compiling such costs and the method of procedure in doing so, be sent to me.

This circular developed the fact that our members have, apparently, paid very little attention to ascertaining accurately costs of doing business, as only two responses were received, one from the Fidelity Storage & Transfer Company, of St. Paul, and the other from Edwin Morton, superintendent of the Baltimore & Ohio Southwestern Storage Warehouses, of Cincinnati.

The response from the Fidelity Storage & Transfer Company reads as follows:

"We note by circular letter from Secretary Criss that you, Mr. Lovejoy and Mr. Greeley have been appointed a Special Committee on Operating Costs, and, as suggested, we are glad to propose one feature as to operating cost of which the writer has made some study.

Paying for Special Service.

"The additional attention in sorting goods and space on the warehouse floor required when handling in a carload of assorted goods, as compared with a same quan-

tity of goods all of one kind, is startling, and the estimate of labor cost for handling-out an assorted car, when we also consider the extra care required in scrutinizing the boxes or sacks when delivering, as well as care upon the part of the stock clerk in entering in order to keep our records straight, makes an increase in operating cost, advancing as the number of varieties or marks increases. The enclosed sketch is, we admit, not very plain, but if readable, it gives the writer's candid judgment of the cost of handling a carload of sugar of four varieties, as compared with a similar carload of one or two varieties.

"We have been for a year or two past charging a moderate excess variety fee on carloads containing more than two sorts—on small commodities like dried fruits, 25 cents per excess variety, and on sugar and larger goods, 50 cents per excess variety. The reason for commencing our excess variety charge at the third, instead of the second variety, is that we figure we can locate two lots in a carload, so as to avoid any waste space of cross aisle, as we usually make our sections run 20 feet deep, and a carload of 40,000 or 50,000 pounds will usually go in a 10-foot wide space against the aisle, thus we can draw from either of two varieties direct on the main aisle, but for a larger number of varieties we would have to commence a cross aisle.

"If our calculation is correct, or nearly so, the man who stores a carload of 10 varieties should certainly pay either for every box in the lot a higher rate, or for the

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excess varieties in some way, or the warehousemen will actually lose on his carload.

"The writer does not claim he has scientifically worked out the problem, but feels it can be done, and that our method of making an excess variety charge is an approach toward a solution of the question. It is safe to say a warehouseman, with his house full of goods of a drayload or less each, would have to have so much wasted space in aisles that his storage charges must needs be doubled, or nearly so, to come out even, and if, as is often the case (especially with sack goods or small boxes like the Libby canned meats), the marking is indistinct, the care and exacting attention required when placing in position in warehouse and partly when taking goods out, in making up an assorted shipping order, would mean another 50 to 100 per cent increase in that portion of the operating expense."

The bottom note referred to by them, reads as follows:

"A reasonable minimum charge is made on small consignments received in storage—and likewise a minimum charge applies (according to the commodity) when any stock is reduced to small quantity, because of the extra proportionate space and attention required on small lots. Where several varieties or marks in a carload must be kept separate, the carload rate will apply but with a fair additional charge for each variety over the first two."

A Cincinnati Experience.

Mr. Morton, of Cincinnati, writes as follows:

"C. L. Criss, secretary, American Warehousemen's Association, informed me some time ago that as chairman on a Special Committee on Operating Expenses, you were desirous of having copies of any forms which the members might be using and the methods of compiling these records, and all other data relating thereto.

"I have been so busy during the past summer that I have not been able to give this earlier attention, but take pleasure now in sending you the information in regard to our own experiences. In the first place I enclose a copy of our form for "Daily Report of Goods Received," and another "Daily Report of Goods Delivered." Each lot as it comes in, whether large or small, is given a progressive number, which forms the basis of our filing system and serves as a check number for tracing back past work, and from this list the book entries are made, and, of course, each firm's "pros" and cards are filed together. At the close of the day's business the weights are totaled at the foot of the page, and occasionally several pages have to be used for a single day's entries. These weights are reduced to tons and the sums are entered in a small side book each day for a month; at the close thereof these tonnage entries are again totaled to arrive at the total tonnage taken in during the month.

"In a similar way the record is taken of goods delivered. As the goods are generally withdrawn in small

lots, it usually takes from three to six pages. These weights are also totalized and entered in another side book, which in turn is also totalized at the end of the month. The foremen of the various warehouses are only allowed to recognize orders issued from the office, which are made out on a register machine, consecutively numbered, the copy being kept in the office, and they are matched up after they are delivered, and instead of using a progressive number on this report, we use the order numbers, which necessarily cannot run progressively on the sheet.

Striking a Monthly Balance.

"At the end of the month we figure up our total outlay for labor and add to this the cost of the power to arrive at the total cost of the physical handling of the tonnage. This is divided by the sum of the total tons in, and the total tons out, during the month, to arrive at the cost of handling. For instance: We took into the warehouse last May 5,180 tons and delivered out 4,012 tons, a total of 9,192 tons handled; the physical expense for handling this was \$1,764.15, showing a cost for the month of 19 19-100 cents per ton. This cost has varied considerably in various months, owing to the nature of the goods handled, volume of traffic, class of labor obtainable, and other features, but the average cost for our fiscal year ending June 30, 1913, was 18 31-100 cents per ton against 19 80-100 cents in 1912; 20 58-100 cents in 1911; 20 81-100 cents in 1910; 22 56-100 cents in 1909. As you see there has been a gradual lessening of the cost although we have been paying better wages than we did five years ago. In figuring the cost of labor we include, besides the regular freight handlers, the salaries of one general foreman, six division foremen, two coopers, one janitor, one shipping clerk and his helper. We do not include the office salaries, office expenses, stationery and printing, loss and damage, insurance or warehouse expenses.

"I admit that this is simply a rough and ready way of arriving at costs, as it does not separate the inbound cost from the outbound cost, but I know of no effective way of doing so. I estimate roughly, however, that it costs thrice as much to unload, elevate and pile a car of goods as it does to make the delivery. The unloading of a car is included in our storage charges, but we do not load wagons or cars when we make deliveries, or, at least if we do load the cars, we make a charge for it, as a delivery only contemplates putting goods back on the platform. I would state that all goods are elevated to the upper floors, except extremely heavy packages such as machinery, marble, granite or pipe.

"We have no detailed figures as to the relative cost of handling various commodities. The goods we handle most of we handle at the least expense, as the men naturally acquire a facility in handling these goods, which enables them to do the work more quickly with fewer lost motions. Much more elaborate statistics might be ob-

tained of the cost of handling, but would require an expert accountant, and the cost would be out of all relations with the benefit of the individual warehousemen, but it might pay the Association to employ such an expert to make investigations at the various large warehouses for the benefit of all of the members. The man would have to be a fine accountant, thoroughly well versed in higher mathematics."

Gathering Data in California.

By reason of the fact that storage warehouses in California have been defined as "Public Utilities" and subject to the jurisdiction of the State Railroad Commission, it became necessary to adopt a means of arriving at the accurate cost of all services they rendered. A plan has been devised and forms prepared for this purpose, and they are now being used, but their use has not progressed far enough to report results. In the course of a few months a great deal of very valuable information will have been obtained in this manner, which I believe will fully compensate the expense incurred doing so.

The data so far obtained by use of these forms has shown that the rates for handling in our trade are much lower than the cost of this service, and that the difference is either being borne as a net loss, or is taken from the profits of storage. Either practice is wrong; each service should pay its own way.

In Mr. Morton's report he states their cost as shown, is the average cost of receiving and delivering, and does not attempt to show the separate cost of each service. To make the information of its fullest value, this should be shown, and I believe the expense of obtaining it, (at least on all important commodities), would be justified.

It is not our intention to endeavor to ascertain the cost of handling all goods received or delivered, but from time to time to keep a record in different warehouses on specific commodities. For illustration—we will keep a record on canned goods for, say, three months, showing cost of receiving all canned goods handled in each of several warehouses, and also the cost of delivering all canned goods during the same time, in the same warehouses. This will give a very complete line on the cost of handling this commodity.

It is our intention to do this on all the more important commodities handled, so that when it becomes necessary to again take up any matters touching on rates with the commission, we will be able to do so properly.

In the report of the Fidelity Storage & Transfer Company, they call attention to the greater cost of handling goods where there are a number of varieties in the lot. This we have realized, without being able to devise a proper method to cover this extra cost in our charges, excepting that we have provided in our tariff a minimum charge for either storage or labor of 15 cents on any, or each item, of any account, and a further minimum charge of 50 cents per month for any account.

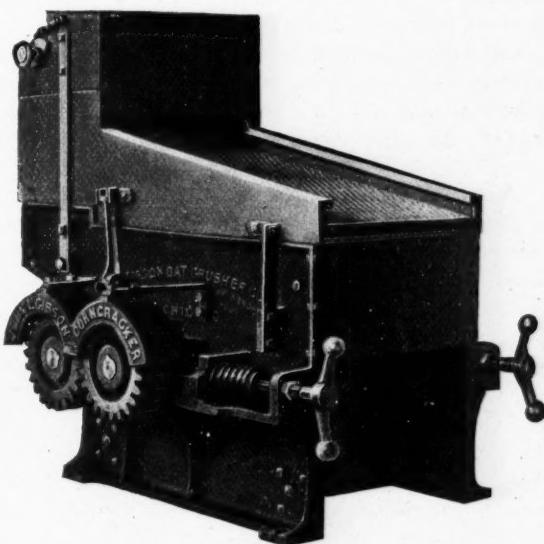
A Little Sermon on Feeding Oats.

All horses, when fed on whole oats, will swallow some whole oats without chewing them, and the stomach cannot accomplish what the teeth fail to do. This applies to young as well as old horses.

A general average by chemical analysis in a stable of 100 horses, young or old, shows 21 per cent wasted. Meal after meal is so overtaxed with indigestible oats, which weaken and inflame the digestive organs so they cannot perform their functions and extract all the nutriment even from the masticated oats.

When you feed your horse whole oats and you see whole oats in the manure you don't know how much nutriment the animal gets, because you see waste with your naked eye.

But when you feed your horse crushed oats you know exactly how much nutriment it will get, for all



Gibson Oat Crusher.

the nutritious parts of the oat will digest, nothing wasted.

The saliva, when the shuck of the oat is open (crushed) will mix with the digestible part of the oat, whether the teeth further masticate it or not. The saliva is what does the work.

A properly crushed oat is where the shuck or thick skin of the oat is broken or opened to expose the inside kernel. The oat has not changed its identity, but remains intact, is fed dry, can be fed in a nose-bag and fed every meal, at a saving on every meal.

There is no question regarding a 15 per cent saving by feeding crushed oats, as has been demonstrated all over the United States, in stables in all lines of businesses, and keeps the horse in a better condition every way. It is a simple proposition of the horse getting

the benefit of what is eaten. No nutritious parts of the oat wasted.

The rule for feeding crushed oats is as follows: Whatever quantity of whole oats is fed each meal, feed 15 per cent less in weight of crushed oats. For instance:

A 15 per cent saving in a stable of 50 horses one year, where 18 pounds of whole oats are fed each horse per day, would be 1,536 bushels, at 50 cents; \$768 saved. On 100 horses, 3,072 bushels, at 50 cents, \$1,536 saved. Where 21 pounds of whole oats are fed each horse per day, the saving in a stable of 50 horses one year would amount to 1,788 bushels, at 50 cents; \$894 saved. On 100 horses, 3,576 bushels, at 59 cents, \$1,788 saved.

Same results are obtained with oats and barley mixed, or whole barley; in fact, barley should never be fed whole to horses, but should be fed crushed, and crushed dry. Crushed oats and barley is not classed as a ground or soft feed, but merely assists what the teeth fail to do, pre-masticate the grain.

Millions of bushels of crushed oats and barley (crushed on a Gibson Oat Crusher) are fed every year to horses and stock all over the United States and Canada with unvarying satisfactory results.

A Six-Wheel Truck in Contemplation.

The Allegheny Transfer Company, of Irwin avenue, Northside, Pittsburgh, are experiencing the usual dull season, but the prospects for good spring business are very promising. This firm has not as yet purchased any motor trucks, General Manager Sam Donaldson being still of the opinion that the horse is more efficient in their work, but they are "open to conviction," and have been approached by several motor truck manufacturers. One concern has submitted plans for a six-wheeled truck which looks practical. This is a new idea and it may work out satisfactorily. However, a number of improvements are contemplated before the new model is put on the market.

Motor Truck for Piano Work.

J. H. Bair & Son, the well-known piano moving and storage firm, of 584 Smithfield street, Pittsburgh, are planning for a big spring business. They report a very busy holiday trade.

This firm was the first in Pittsburgh to install a motor truck for piano hauling. They find their machine very satisfactory. Mr. Ollie Bair also represents the Bilger piano mover and the Hall piano hoist in Pittsburgh and Western Pennsylvania.

S. D. Hunter, general manager of the Iron City Transfer Company, of Pittsburgh, is giving the subject of motor trucks his consideration. As soon as the cold spell is over and spring business opens up, he will look into the advantages they offer.

New York Conditions, from a Visitor's View-point.

James Simpson, president of the Pennsylvania Transfer Company, of Pittsburgh, has recently been inspecting the docks and railroad terminals in New York city. While in the East he called on the Mead Transfer Company, Jackson Brothers, and the Warwick-Thompson Company, and found conditions in New York rather different from what they are in Pittsburgh. The wagons and trucks in New York use a wider gear and are dipped at the back to meet pier platforms.

The street conditions in New York are exceptionally good, which makes the downtown hauling very much easier, (this, by the way, is due to the untiring efforts of the New York Team Owners' Association, who have worked with the street commissioners to have conditions improved).

Mr. Simpson was surprised at the very small number of motor trucks in operation in New York. It seems that present conditions do not warrant the general use of auto trucks for short hauls and deliveries at piers. However, it is found advisable to use the trucks for long hauls, as they have been tested and statistics prove them very economical.

In the opinion of Mr. Simpson, Pittsburgh team owners are strictly up-to-date and the equipment of the transfer companies in Pittsburgh compares favorably with those of New York city.

"Back to the Soil" for One Team-Owner.

AMHERST, NEB., JAU. 1.

To the Editor of the TEAM OWNERS REVIEW:

Your esteemed December edition was delivered here at our farm-house near Amherst. Having disposed of my teaming interests at Hastings, Neb., I and my three sons are living contentedly on our farm here—back to the life I left as a boy, nearly 28 years ago, to make a living as best I could by driving teams and handling transportation. Twenty-five years of that time I was in the teaming business, either as driver or owner, and three years more driving a hose wagon on a city fire department. I still think it an honor to hold the reins over good horses, and enjoy setting our boys an example at times, showing them that horses are not machines. I am glad to read that there is so marked an improvement in our great cities in the matter of the treatment of the most faithful animal that was ever called to man's use. May the good work continue all along the line.

Please find remittance for another year's subscription, and change my address to Rural Route No. 1, Amherst, Neb.

J. H. HOAGLAND.

[Formerly 301 Second Street, Hastings, Neb.]

USE ONLY **U. S. HAMES**—THEY ARE STANDARD QUALITY

:-: Motor Truck Owners Review :-:

Phenomenal Order for Heavy Duty Trucks for Pacific Coast.

The Motor Truck & Terminal Company, of Los Angeles, which within the year will be perhaps the largest general trucking company in the United States, has bought in one block 50 Peerless trucks of four, five and six-ton capacity for immediate delivery.

This is one of the largest orders for heavy duty trucks ever placed in the United States. All of the trucks will be delivered within 60 days and shipments already have begun.

There was naturally a great deal of competition on so large an order from all the makers of well known

a contract for provisioning all the boats which enter San Pedro harbor, 22 miles away, and the trucks will be used to carry provisions to the ships over the 22 miles of finely paved road.

Ben Johnson, president of both the market and trucking companies, believes that when the Panama Canal is opened the number of ships making San Pedro harbor will be increased to the point where 50 trucks will be required to take care of that one branch of the company's hauling. Previously shipments over this distance have been made by railroad.

In addition to this work the trucks will distribute to the various commission merchants and other large buyers an average of 20 carloads a day of produce which is



A "Peerless" truck in use in the Los Angeles "stake" trade, equipped to haul trailer.

trucks and the Peerless was selected only when engineers under the direction of Jay Clark, general manager of the company, had made an exhaustive structural examination of all the leading trucks and had investigated the performance of the Peerless in the hands of other owners.

The Motor Truck & Terminal Company is one of the properties of the Perry estate, which owns the Los Angeles Market Company. The market company has

received by the Los Angeles Market Company, for distribution in the city.

The company will also do a trucking business for Los Angeles jobbers. There are 380 miles of finely-paved roads in the vicinity of Los Angeles leading to Pasadena, San Bernardino, Monrovia, Redlands, Riverside, Pomona, Santa Anna, Whittier, Long Beach, Santa Monica and Hollywood. Between these cities the trucks

will get a great volume of business in preference to railroad shipment, which necessitates a great deal more handling of goods, is slower and not any less expensive.

There have been a number of small trucking companies in Los Angeles bidding for the business of jobbers, but they had very little capital and were not able to render the service demanded. Several of these have been bought out and their trucks turned into the Motor Truck & Terminal Company. With the arrival of the 50 new Peerless trucks on the coast this company will have 80 trucks in service.

All of the trucks purchased by the company are ordered with a draw-bar attachment for trailers. It is the plan to operate truck trains of two or three trailers over the long interurban hauls. A service of this kind will probably be established between Los Angeles and San Diego in the near future. The sale of new trucks was made by Smith Brothers, Peerless dealers in Los Angeles.

The Auto Truck in Maryland: Proposed Legislation.

Motor truck interests that have been concerned over the reported proposal to enact legislation in Maryland this winter to limit the weight and speed of motor trucks for the protection of the State roads will probably be relieved by information contained in a letter recently sent out by H. G. Shirley, chief engineer of the Maryland State Roads Commission. It reads:

"We have under construction at present about 60 miles of concrete road. I believe that the concrete road is the coming county road to stand the heavy traffic of automobile trucks. We have no desire in this State to impede economical advancement of hauling with larger equipment than has heretofore been used, but the protection of life is also in our hands, and we must look out for the present structures, which are in such condition that it would be quite a waste of money to destroy them and build new ones, which would be capable of carrying the larger loads.

"The bridges which we are erecting to-day will carry almost any load that can be hauled over a highway, as we design for a weight of 24 tons with a factor of safety of three, which would carry theoretically a 72-ton load. This, in my judgment, will be sufficiently strong to carry the increase of traffic for many years to come. We also have many bridges which were designed for a six-ton load, which are now carrying 12, and they have been standing quite a number of years. It is quite a difficult matter to decide just where to draw the line, but I think you will find that the officials of Maryland will always try to be reasonable, and try to draw the line where it will be fair to all concerned."

Gov. Goldsborough, of Maryland, has appointed a Traffic Commission to investigate motor trucking and other traffic conditions to co-operate with the State Roads Commission in drafting a law that will be fair to all parties concerned. These commissions are now

studying the weights and also loads of large wagons, motor trucks and traction engines, width of body, tire width, and other factors related to road use. The New York Automobile Chamber of Commerce has called attention of these commissions to the danger of restricting the development of economical haulage if the limitation of weight is placed too low, and pointed out that such restrictions may be taken advantage of by county and township road authorities to postpone the rebuilding of old, weak bridges and poor roads.

They were also asked to bear in mind that eleven Eastern States have appointed special commissions to meet together and evolve a uniform vehicle law that will do away with the many annoying differences in the present laws that are an impediment to interstate travel by highway. These commissions are now at work on the task, and pending the results of their labors it is believed that it will only complicate the situation if Maryland and any other States enact special laws at variance with the provisions of similar laws in force in the principal commonwealths.

Auto Owners in New York State.

The Automobile Bureau of the State of New York received \$1,275,000 for licenses and registration certificates for the year 1913. For the corresponding period in 1912 the total was \$1,060,000, and in 1911 \$905,000. Last year there were registered 133,000 owners of motor vehicles, 57,000 chauffeurs, and 1,800 dealers, against 105,000 owners, 45,000 chauffeurs, and 1,700 dealers in 1912.

The increased use of commercial cars is one of the most notable features of the year. There are over 13,000 of these, which shows a gain of 61 per cent in the year. The increase in Massachusetts was 47 per cent, the total cars being 5,948.

Of the motor cars in most common use, approximately 50,000 cars are of 25 horsepower or less, as compared with 38,000 a year ago. A gain of only 20 cars is shown in the number of 50 horsepower and over, the total being 1,380.

Quality in Wagon Manufacture.

The Koenig & Luhrs Wagon Company, of Quincy, Ill., have been making high grade business wagons and trucks for the past 30 years. They have made a study of this line of business and are without doubt one of the best equipped firms in the United States. They have endeavored systematically to eliminate the weak points in the construction of business vehicles. Nothing is used but the very best air-seasoned lumber; both bodies and gears are well ironed and braced throughout.

The best paint and varnish is used in finishing, so that the equipment always looks well and keeps its original color. This well-known firm has customers who have had its wagons in daily use for 15 and 20 years and which are still in service. In another part of this issue of the Review will be found this firm's advertise-

Molassine Meal

MADE IN ENGLAND

Astonishes Horsemen Everywhere

What Do You Think of This?

LOWELL GAS COMPANY.

J. B. Cover & Co.,
Lowell, Mass.

Gentlemen: I have used Molassine Meal on the horses in this stable for nearly a year. At first I thought there was no virtue in it, but I find the longer I use it the better I like it. The horses look good and seem to get the good of all the grain I feed them.

I have also noticed that it expels worms and keeps them constantly on their food.

Very truly yours
(Signed) D. E. MINER,
Foreman of Stables.

BOWLER BROTHERS' BREWERY.

Worcester, Nov. 6, 1913.

Gentlemen:—I am very glad to give my testimonial in regard to Molassine Meal. At first I refused to listen to your representative in regard to this new feed, but I gave it a thorough trial and IT HAS WORKED WONDERS in the way of KEEPING HORSES ON THEIR FEED and helping them to get the good of the same.

(Signed) Bowler Bros.' Brewery,
THOS. KEEFE, Foreman of Stables.

Your own horses can be in just such good condition. You can keep your horses strong and healthy by using Molassine Meal, because it contains special natural properties not possessed by any other food. Nevertheless it is guaranteed to be free from spice, drugs, condiments or physic of any kind. It is a perfectly natural food and contains antiseptic and digestive properties which make animals so healthy that they are able to extract the maximum amount of nutriment from their entire food.

Feed $\frac{1}{4}$ Molassine Meal, $\frac{3}{4}$ regular ration to get best results.

Absolutely unlike anything else in the world; it is not to be fed alone, but is always fed with your regular ration.

Feed three quarts per day to each horse in place of the same quantity of other fodder. In the course of a few weeks you will see improved results in the shape of strength and energy, glossy coat, and less perspiration.

Look for this Trade Mark on every bag.



"MOLASSINE MEAL" is put up in bags containing 100 lbs. Ask your Dealer for it or write direct.

Have you had a copy of our latest Book? It's free.

MOLASSINE COMPANY
OF AMERICA

324 Board of Trade,

St. John, Montreal, Toronto, Winnipeg.

Boston, Mass.



ment. All they ask is an opportunity to show team owners how satisfactorily they can meet all requirements. Chicago, St. Louis, Kansas City, Minneapolis, Milwaukee, and other points in the west are large buyers of these wagons.

The Koenig & Luhrs Company have issued a very interesting catalogue, which should be in the hands of every one of our readers as it is full of valuable information. The company prides itself on quality.

How Horses Rest.

"Horses can get some rest standing," said an old trainer, "provided the position be reasonably easy, but no full rest except recumbent." It is known of some horses that they never lie down in the stall, though if kept in pasture they habitually take their rest in a recumbent position. It is well to consider whether the habit has been forced upon the horse by some circumstance connected with the stall he was made to occupy, in that it had a damp earth floor, or one made of dilapidated plank, uncomfortable to the horse that had been accustomed to select his own bed in the pasture.

If the horse can have the privilege of selecting his own position for resting on his feet, he can sleep standing; but while his muscles may be to a certain degree relaxed, and get rest in that position, what can be said of the bearing at the joints? Without relief through the recumbent position, the joint surfaces are forced continuously to bear a weight varying from one thousand to eighteen hundred pounds. This must act unfavorably, especially upon the complicated structures within the hoofs, which nature intended should have periods of rest each day.

Horse Bureau for City of Pittsburgh.

Pittsburgh councils last month created a city bureau of horses. It is to be headed by a veterinarian and will be attached to the mayor's office. Edward Ward, who is now superintendent of horses, will be head of the new bureau. The committee was shown by H. R. Sands, of the New York bureau of municipal research, that this would be a wise move and he gave figures showing that the Pittsburgh department of supplies had spent \$6,190 for 19 horses in Kansas City and also spent \$292 for traveling expenses of city employes to that city to make the purchase, while 23 horses bought in Pittsburgh cost but \$6,160.

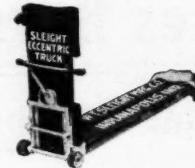
FOR SALE

An old established Delivery Company in one of the largest cities of the United States will dispose of the city delivery branch of its business to a live wire on very reasonable terms. Not much cash required.
Address E. F. ALLIGER, No. 1115 Superior Vladuct, Cleveland, O.

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Packers, Movers, Shippers and Storers of Household Goods.

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Office 630 Penn Avenue, PITTSBURGH, PA.
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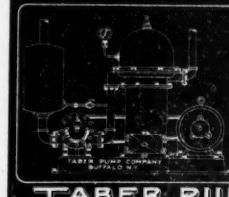


DOES THE WORK

So quickly that you can handle pianos in any kind of weather. Send for folder.

W. T. Sleight Mfg. Co.,
303 Wulsin Bldg., Indianapolis, Ind.

VACUUM HORSE GROOMING AND MASSAGE MACHINE



Cleanliness & Massage
Are as good for a horse as for a man.
This machine improves the health of the horse as well as enabling one man to do the work of several, reducing expense, and benefiting the horses. Sanitary, because it removes not only impurities, but germs. Profitable, because it saves you money. Send for particulars.

TABER PUMP COMPANY
BUFFALO, N.Y.

A TREATISE on the Horse— **FREE!**

We offer free this book that tells you about many of the diseases afflicting horses and how to treat them. Call for it at your local druggist's or write us.

KENDALL'S SPAVIN CURE

It is a safe and reliable remedy. It will cure Ringbone, Splint and other bony enlargements. It is also a reliable remedy for Curbs, Sprains, Bruises, Cuts and Lameness. It does the work safely at small expense. Read what W.T. Sadler, Atlanta, Ga., says in his letter:

"Your Treatise on the horse is received and contains many good formulas for treating stock. I have sold many bottles of your Spavin Cure and have never had a complaint from a customer."

And Mr. Wm. Booth, of Gravette,

"Your book is worth \$5.00 if only used as an aid in locating lameness. Shoulder lameness is the most difficult for an inexperienced man to locate. It is easy, however, with the help of your book."

Kendall's Spavin Cure is sold at the uniform price of \$1.00 a bottle, or \$1.00 a book.

If you cannot get it or our free book at your local druggist, write us.

1 DR. B. J. KENDALL COMPANY
Etnoxburg Falls, Vermont, U.S.A.

You Lose 15%. Of Every Bushel of Oats You Feed

WHY?

Because 15 per cent of whole oats pass through a horse undigested. If the oats are crushed you can feed 15 per cent less. Moral: Buy a Gibson Oat Crusher.

You Can Borrow Money for 6%

and invest it in a

GIBSON OAT CRUSHER

in a class by itself

with or without corn cracker attachment, and then save 9 per cent. If you own 20 horses the machine will pay for itself in nine months. The more you feed, the more the machine saves you.

YOU STILL DOUBT? "Ask the man who owns one." We've hundreds of them running every day.

We will ship you our Oat Crusher, on trial complete with cleaner (no other cleaner necessary) with an absolute guarantee to save you 15 per cent on your feed bill and put your horses in better condition in every way. It's all in the way they are built—last a lifetime—cost nothing for upkeep. Built for belt drive or direct connected motor. **TRY ONE.** Costs you nothing should we fail to "deliver the goods."

Patented
June 8, 1909



GIBSON OAT CRUSHER COMPANY

PATENTEES AND SOLE MANUFACTURERS
1530-1532 McCormick Bldg., CHICAGO, ILL.

Gibson Vacuum Horse Groomer

A Product of Years of Experience in Pneumatics
"FOOL PROOF"

Good for a Lifetime Perfectly Simple
Simply Perfect

With a Gibson Vacuum Groomer you can with one man, do the work of several and do it thoroughly. In fact there is no comparison between the old style methods and the Gibson Vacuum Groomer. All dirt, dust, germs, etc., are removed from both the animal and from the stable, making the operation of grooming as cleanly as it has heretofore been dirty and disagreeable.

The horses like it. Anyone can operate them. Built also to run with same motor that runs your Oat Crusher. No water used in our apparatus, separator is a dry separator. Blower is practically noiseless. Satisfactory under most exacting and continuous duty, requires no adjustment to keep it up to full efficiency.

Prices are Right too. Ask us—built in all sizes



Gibson Oat Crusher Company

Patentees and Sole Manufacturers

1532 McCormick Building

Chicago, Illinois

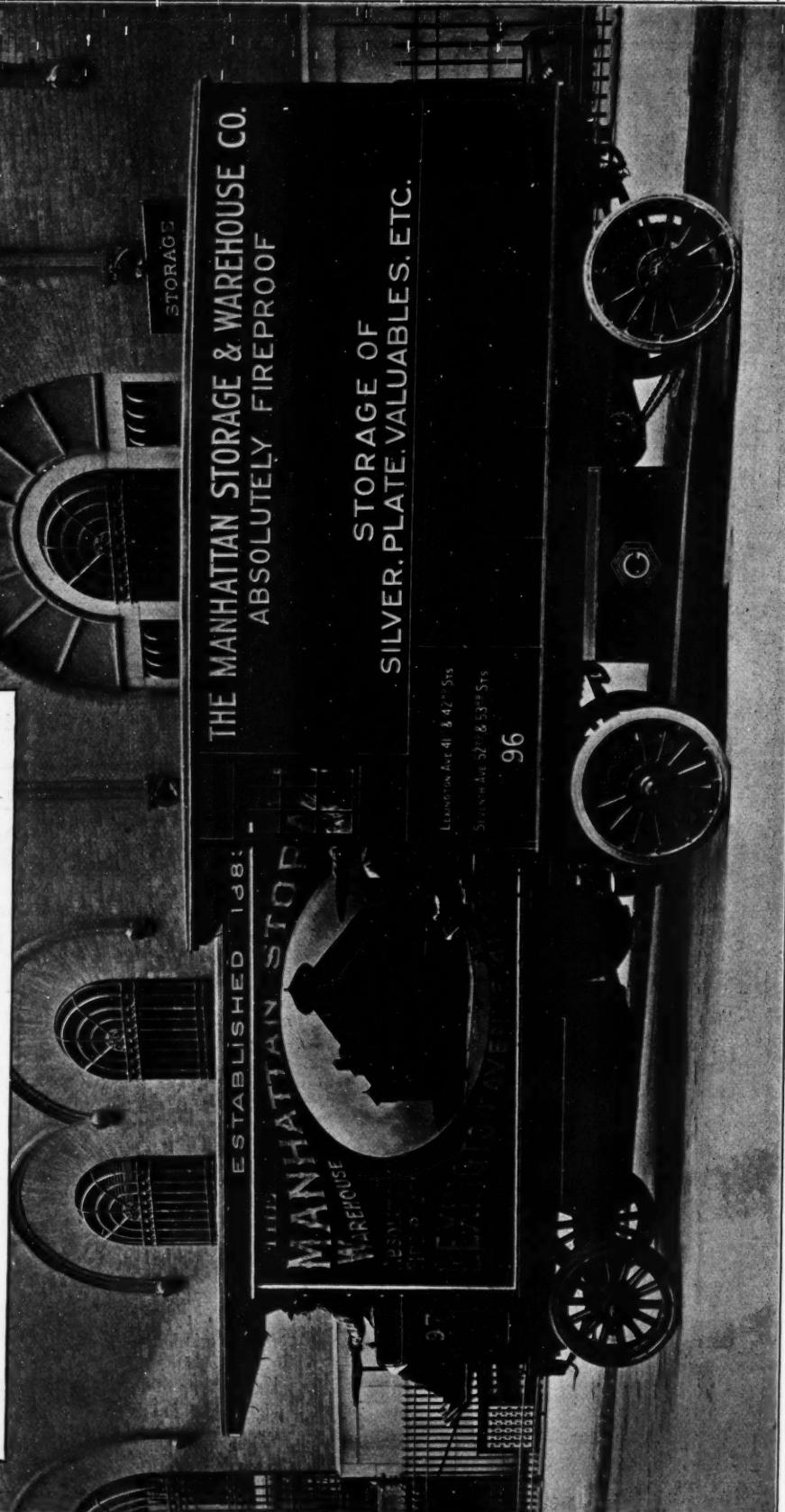
"Conditioners of both the inside and outside of horses"

Successful motor truck operation to-day consists in having properly applied installation and an operating policy that avoids the mistakes that have proven so disastrous to others. Every problem we have overcome adds to the worth of the experience you buy into as a G. V. purchaser.

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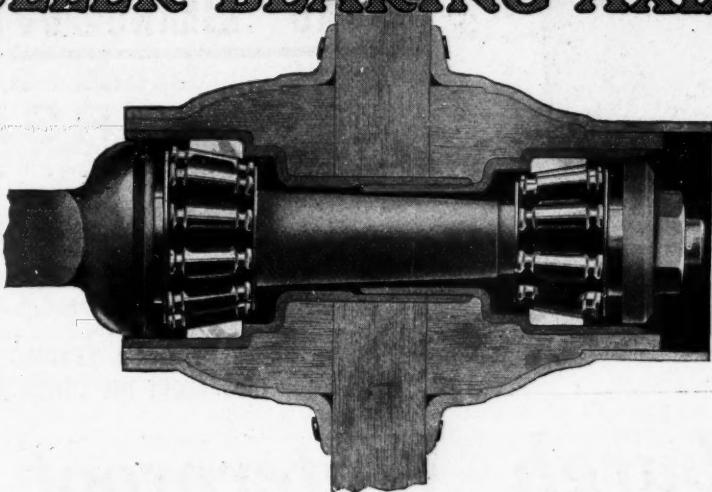
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General Office and Factory - Long Island City, N. Y.
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TIMKEN

ROLLER BEARING AXLES



The Inside Reason

TIMKEN Roller Bearing Axles save money for the wagon owner. If you're skeptical about that statement ask the Standard Oil Company why they have bought over five thousand sets, and are taking more every month.

Ask any wagon owner who uses Timken Roller Bearing Axles what results they have given.

Talk with the men who are making their investments in horse drawn vehicles pay them a bigger percentage of profit.

These men know from experience that Timken Roller Bearing Axles save money because they reduce the draft from 25% to 50%; because much less oil is required; because once a month is often enough to oil these axles and this saves the barn man's time; because hot boxes and greasy hubs are done away with and because Timken Roller Bearing Axles eliminate the "chuck" that racks and wears out any vehicle.

A Timken Bearing with Cup Removed

Tapered rollers, revolving about a cone, sustain more load because they carry it along lines—not on points as balls do.

Timken "Long Series" Roller

This roller receives as great care, accuracy and fine workmanship as any part of a watch.

Cage that Holds Rollers in Place on Cone

It requires six operations and six annealings to make this one-piece cage out of flat sheet-steel.

The Inside Reason for the Efficiency of Timken Roller Bearing Axles is the TIMKEN ROLLER BEARING.

Every Timken Roller Bearing has four unique cardinal principles.

1. It has greater ability to sustain load because the load is distributed over the length of rollers, not concentrated on points as with ball bearings.

2. It has greater ability to meet end thrust when the wagon rounds a corner, jars and sways over cobble stones, jolts into ruts.

3. Because the load is distributed over the length of rollers, wear is reduced to the lowest possible point; and

4. It's the one perfectly adjustable bearing. When the wear, inevitable in any bearing, does come, it can, in the Timken, be entirely taken up by adjustment without sacrificing any of its original principles of efficiency. Simply by advancing the cone a little farther into the cup.

You will be interested in knowing how others have made horse haulage pay a bigger profit. Write for a copy of our new book, O-4, "Making Horse Haulage More Profitable." Sent free, postpaid, on request to

Cone, Showing the Two Ribs

Two ribs on the cone are absolutely necessary to maintain the full line-contact, by keeping the rollers from twisting.

Cross Section of Hub Box with Bearing Cups Inserted

A hardened and ground steel cup is pressed into the hub box. The cup fits over the rollers which revolve between it and the cone.

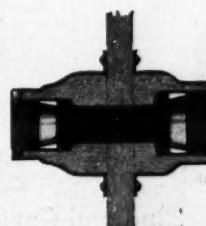


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There is just one quality of Timken Bearings whether for wagons or motor cars.

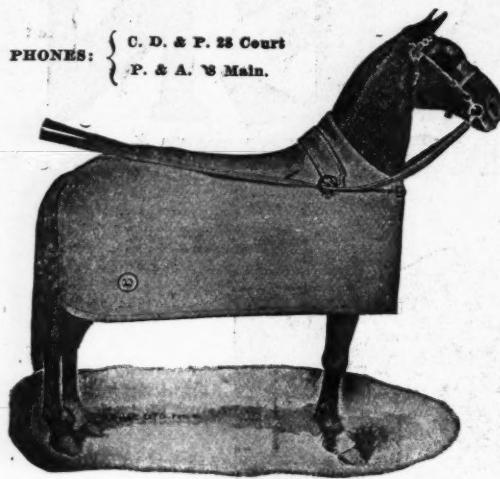
THE TIMKEN ROLLER BEARING COMPANY
CANTON, OHIO

New York Branch, 1999 Broadway
Chicago Branch, 1347 South Michigan Avenue.



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The Original and Only
Manufacturers of the
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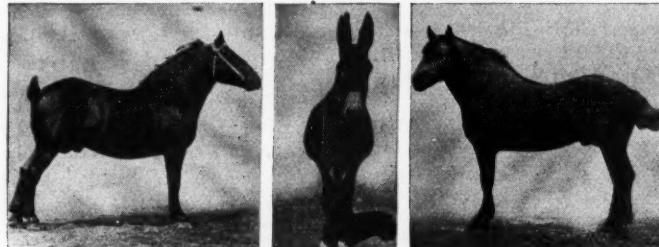
STAG BRAND WATERPROOF HORSE AND WAGON COVERS.

FOR SALE BY ALL LEADING SADDLERS
THROUGHOUT THE UNITED STATES.

Pittsburgh Waterproof Co.

435 Liberty Street, PITTSBURGH, PA.

"EXCELLO"
Way Does Save
Delay.



Reduces Ex-
pense by Dol-
lars and Cents.

EXCELLO

Mr. TEAMOWNER—Are all your teams looking like these fine fellows? If not, why not? What are you feeding them? These boys were fed on a PURE-CLEAN-Balanced ration feed, free from all By-products—

EXCELLO HORSE AND MULE FEED.

They are better able to stand the heavy work, and also look better than the straight OATS Fed Horses.

We would refer you to:
Michael Doyle, No. 18 South Delaware avenue.
C. J. McDermott, No. 121 North Fourth street.
Charles Gallen, No. 17 North Seventh street.
James Nolen, No. 607 Arch street.
all of Philadelphia, Pa., who are users of a High Grade, Up-to-Date,



Balanced Ration HORSE AND MULE FEED,

MANUFACTURED BY THE

EXCELLO FEED MILLING CO.

22nd and Garfield Avenue.

St. Joseph, Mo.



Have Your Horseshoeing Done Right

Employ a competent shoer who uses "Capewell" nails. nothing equals that combination for keeping horses' hoofs in prime condition.

If a nail splits or crimps—cheap inferior nails are likely to—chances are the sensitive part of the hoof will be wounded. Then the foot becomes sore and the horse lame.

If too much of weakening hoof tissue is broken down by the use of big nails, there's danger

the hoof and developing a diseased condition.

"Capewell" nails can be used in smaller sizes than others because they have half again the tensile strength of any nail made. They hold a shoe best and do not crimp or split in driving.

Best nail in the world at a fair price not the cheapest regardless of quality. Any shoer can afford "The Capewell."

-- MADE BY --

**The Capewell Horse
Nail Company
Hartford, Conn.**

LARGEST MAKERS OF HORSE NAILS IN THE WORLD.



ALWAYS USE DR. CARTER'S V. S.

Utility Colic Cure and Utility Liniment—Never Fails.
In Use 30 Years.
MADE BY WILL J. GUESEY COMPANY,
P. O. BOX 277, NORTHSIDE, PITTSBURGH, PA.
Used in Largest Stables in United States.

Telephone 1741 Schenley.
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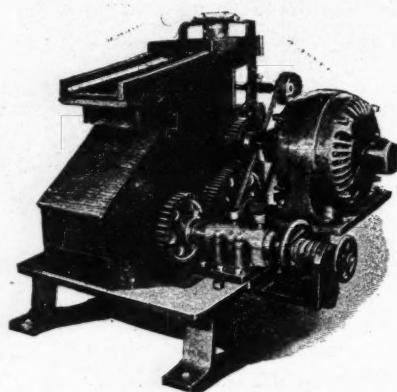
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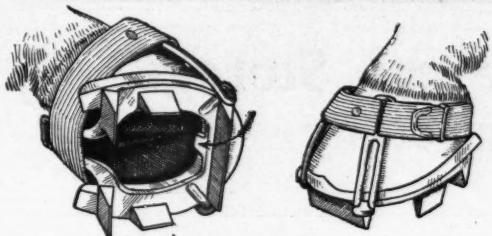
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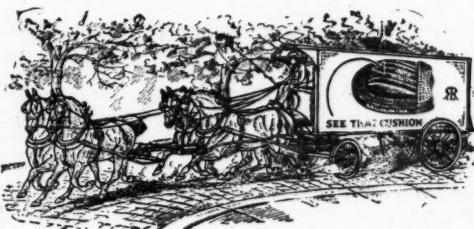
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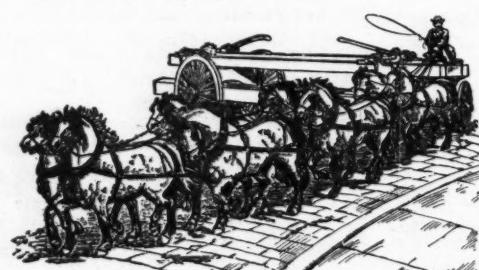


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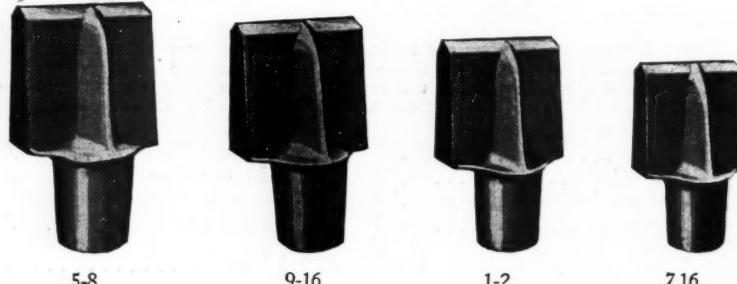
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